

**ABSTRACT****Method and device for filtering a video signal received by a secondary radar, particularly in order to eliminate mode S replies**

The invention applies to secondary radars. It makes it possible to carry out filtering when seeking to detect SSR responses, these SSR responses being overlapped by a mode S response. According to the invention, the pulses of the mode S response are filtered without filtering the pulses of the SSR responses which are of a higher level than the mode S response.

For this purpose, the subject of the invention is in particular a method for filtering a video signal, the video signal being received by a secondary radar, the filtering being designed to precede the detection of SSR responses, the received signal comprising samples intended to be analyzed according to the method, in which method for a sample under analysis :

- at least one instantaneous power (S4) of the received signal is estimated (T1), the power being estimated on the basis of determined signal samples, said samples at least leading or lagging by a duration greater than a duration T with respect to the sample under analysis, the duration T being the duration of an SSR response ;
- a threshold (S5) is determined, the threshold being at least equal to the estimated power ;
- if the power of the sample under analysis (S1') is less than the threshold, the sample is filtered.

**figure 4**